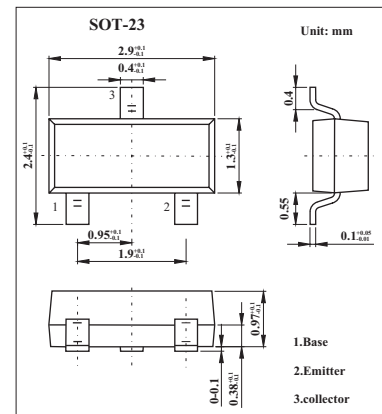


## Silicon NPN Epitaxial

## 2SC2715

## ■ Features

- High power gain:  $G_{pe} = 2\text{dB}$  (typ.) ( $f = 10.7\text{ MHz}$ ).
- Recommended for FM IF, OSC stage and AM CONV. IF stage.

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	35	V
Collector-emitter voltage	$V_{CE0}$	30	V
Emitter-base voltage	$V_{EB0}$	4	V
Collector current	$I_C$	50	mA
Base current	$I_B$	10	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +125	$^\circ\text{C}$

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CB0}$	$V_{CB} = 35\text{ V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = 4\text{ V}, I_C = 0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = 12\text{ V}, I_C = 2\text{ mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$			0.4	V
Base-emitter voltage	$V_{BE}$	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$			1	V
Transition frequency	$f_T$	$V_{CE} = 10\text{ V}, I_C = 1\text{ mA}$	100		400	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		2	3.2	pF
Collector-base time constant	$C_{c,rb}$	$V_{CE} = 10\text{ V}, I_E = -1\text{ mA}, f = 30\text{ MHz}$			50	ps
Power gain	$G_{pe}$	$V_{CC} = 6\text{ V}, I_E = -1\text{ mA}, f = 10.7\text{ MHz}$	27	30	33	dB

## ■ hFE Classification

Marking	R		
Rank	R	O	Y
hFE	40~80	70~140	120~240